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10/552,944	08/09/2006	Dusan Miljkovic	100700.0025US1	2489

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EXAMINER

MEHTA, HONG T

ART UNIT	PAPER NUMBER
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1794

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10/16/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/552,944	Applicant(s) MILJKOVIC ET AL.	
	Examiner HONG MEHTA	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in reply to Request for Continued Examination filed on September 24, 2009.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claim 1, 10 and 18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The new matter in claims 1, 10 and 18 as amended, which cites "...in an extraction process other than fermentation to produce a non-fermented..." in claims 1 and 10; and "...a non-fermented..." in claim 18. These negative limitations have no clear support with the specification.

2. Examiner notes that applicant does not provide sufficient support for the amended claims mentioned above. Applicant directs attention to support of non-fermentation process and non-fermented coffee cherry extract on page 2, line 27 to page 3, line 4 and page 10, line 12 to page 11, line 26 for amended claims. However, page 2, line 27 to page 3, line 4, passage is related to by-products such as waste, pulp, hull and mucilage, as a material in a non-fermented state; page 10, line 12 to page 11, line 26, and does not appear to provide support specifically directed to *non-fermented*

Art Unit: 1794

extraction process or non-fermented *extract*. Furthermore, it appears applicant is equating fermentation process with the same process as extraction, however these two processes are not the same method.

3. Further regarding the phrase "process other than fermentation", any negative limitation or exclusionary proviso must have basis in the original disclosure. If alternative elements are positively recited in the specification, they may be explicitly excluded in the claims. See *In re Johnson*, 558 F.2d 1008, 1019, 194 USPQ 187, 196 (CCPA 1977) ("[the] specification, having described the whole, necessarily described the part remaining."). See also *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983), *aft 'd mem.*, 738 F.2d 453 (Fed. Cir. 1984). The mere absence of a positive recitation is not basis for an exclusion.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim 1, 4, and 6-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boniello et al. (US 4,867,992 A) and further in view of Drunen et al. (US 6,572,915 B1).

5. **With respects to amended claim 1**, Examiner notes the optional language "or" in regards "to providing a whole coffee cherry OR a comminuted whole coffee cherry" (line 3); furthermore, the preceding optional language to be included extract into the food product, such as "(a) the whole coffee cherry or the comminuted whole coffee cherry into the food product, OR (b) extracting the communicated whole coffee cherry in an extraction process other than fermentation to produce a non-fermented coffee cherry extract and including the extract into the food product" (lines 4-9). Examiner proceeded with the examination of the method of making food product comprising a comminuted whole coffee cherry.

1. **Regarding claims 1, 4, and 6-8**, Boniello et al. discloses a process to food product comprising "comminuted" part of or all of the all-coffee nutrient media including

Art Unit: 1794

soluble solids from green extract (aqueous green coffee solids), ground green coffee beans, coffee by products (pulp, coffee husks and mucilage), as well as hydrolyzed spent grounds, roast and ground coffee (col. 2, lines 57-63) with water. Examiner notes the comminuted pulp, coffee husks and mucilage are part of whole coffee cherry fruit. Additionally, Boniello et al. disclose the green coffee beans, and coffee by-products (pulp, coffee husks and mucilage) with no reference to fermented materials or a fermentation process. Boniello et al. teaches employing ground green coffee beans and coffee by products (pulp, coffee husks and mucilage) which is considered to be providing comminuted whole coffee cherry which was processed from a whole coffee cherry.

2. Boniello discloses nutria media comprising of suitable coffee substances, including coffee by products which are (pulp, coffee husks and mucilage) and "comminuted" ground green coffee beans (col. 2, lines 57-63) to produce a natural flavor extract (col. 7, claim 1) then stray-dry or freeze-dry producing a combination to produce a "solid food product", soluble coffee (col. 8, claim 13) for human consumption (col. 4, lines 62-68).

3. Boniello does not disclose the solid food product to be a tea, juice or a carbonated beverage. However, Drunen et al. discloses a process of combining ground coffee and extract taken from dried coffee cherry, e.g. pulp, hull, bean and mucilage, the by-products of coffee processing for beverage foodstuff. Drunen et al. discloses a food product is a drink beverage, which encompasses tea, juice (col. 2, lines 47-48) and carbonated drinks (col. 1, line 67). Drunen et al. disclose a process of the selective

Art Unit: 1794

extraction of antioxidant, such as from comminuted coffee cherry to be return back into food products, drink or natural supplements (col. 1, lines 53-55).

4. It would have been obvious to one of ordinary skill in the art to incorporate Drunen's process of enriching foodstuff into Boniello's process of extracted coffee cherry foodstuff as Drunen's coffee cherry extraction by chromatography removes the toxins from the extract for the purposes of administering the selective extracts to a food, beverage or nutritional supplement by improving the quality and nutritional content ('915, col. 1, lines 41-46).

5. **Respects to claim 9**, Drunen et al. discloses a food product as a drink beverage, which encompass tea, juice (col. 2, lines 47-48) and carbonated drinks (col. 1, line 67).

6. **Regarding claim 10**, Boniello discloses isolating nutrient (col. 2, lines 57-59) from coffee cherry (col. 2, line 61) and "communicated" coffee cherry (col. 2, lines 62-63) with at least one solvent to produce an extract (col. 2, lines 63-68; and col. 3, lines 1-6). Examiner considers the coffee cherry was "whole" coffee cherry before it was comminuted or separated into different parts of coffee cherry.

7. **Regarding claim 11**, Boniello discloses a process of freeze drying the extract (claim 31, col. 10, lines 11-15). Boniello fails to disclose stage of ripeness, quick-drying and chromatography extraction of coffee cherry. However, Drunen et al. discloses a process of combination of ground coffee and extract taken dried coffee cherry, e.g. pulp, hull, bean and mucilage, the by-products of coffee processing for beverage foodstuff by chromatography.

8. **With respect to claims 12-14**, Drunen et al. teaches chromatography with selective extraction for nutrients, caffeine, polyphenol and polysaccharides (col. 3, lines 40-56).

9. **Claim 5 and 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Boniello et al. (US 4,867,992 A) and Drunen et al. (US 6,572,915 B1) as applied to claim 1 above, and further in view of Fabian et al. (WO 9742831 A1) Duvick et al. (US 5,792,931 A) and Blanc et al. (J. Agric. Food Chem. 1998).**

10. **Regarding claims 5 and 17**, Boniello as modified by Drunen discloses a composition that falls within the scope of claims 5 and 17, since the claimed end product may encompass a wide range of amount of mycotoxin, aflatoxin, fumonisins and ochratoxins including zero ppb of the toxins, as claims recites mycotoxin levels less than the specific values.

11. It is known in the art of coffee processing as illustrated by Fabian et al. that quantities of these micotoxins in the coffee are in actual fact extremely small in a few ppb – parts per billion (pg 1, lines 1-6). There are many different types of mycotoxins which are naturally present as a preservative in coffee cherry including fumonisins as illustrated in Duvick et al. (paragraph 75) including fumonisins in coffee. It is further expected that the low range amount of the same in the product of Fabian would provide the some amount preservation effect. Furthermore, Blanc el al. discloses that ochratoxin A (OTA) is a nephrotoxic and nephrocarinogenic mycotoxin produced by several fungal species from the *Aspergillus* genus and by *Penicillium verrucosum*.

Art Unit: 1794

Blanc et al. also discloses that natural occurrences of OTA in green coffee beans have been reported by several authors in concentrations ranging between 0.2 and 360 µg/kg or 0.2 and 360 ppb (Introduction).

12. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the quick-dried comminuted whole cherry used in both processes of Boniello as modified by Drunen, with the claimed ingredient ranges because at the time of the invention was made it was well known in the art of botany mycology and the coffee industry that quantities of these specific toxins is low as recited by Fabian, Duvick and Blanc.

13. Claims 2, 3, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boniello et al. (US 4,867,992) and Drunen et al. (US 6,572,915 B1) further in views Sivetz et al. (Coffee Technology 1979).

14. Boniello as modified by Drunen teaches claims 1 and 10 as discussed above.

15. **With respect to claims 2, 3, 15 and 16**, Boniello et al. fail to disclose the cherry coffee ripeness by-product of the coffee production. However, Sivetz et al. discloses the ripe coffee fruit, losing chlorophyll, green to yellow to read as the coffee cherry fruit matures for coffee processing (pg. 74, paragraph 3) and is stripped in all stages of ripeness including "sub-ripe" coffee cherry (pg. 76, paragraph 2).

16. Sivetz et al. discloses green coffee cherries to be dried either in a mechanical drier for "quick drying" or on by sun-drying, or solar radiation in an ambient air terrace for coffee processing (pg. 75). Examiner considers Sivetz's preparation of whole coffee

Art Unit: 1794

cherry to exposure to the sun-drying terrace and mechanical driers as quick-dried preparation, as defined in Applicant's specification as using heated air exposure to sun and/or ambient air on page 9, line 6 of the instant specification).

17. It would have been obvious to one of ordinary skill in the art to combine Sivetz's sub-ripe quick-dried coffee cherry into Boniello's process of making a cherry coffee food product as Sivetz et al. discloses all stages in ripeness and drying of whole coffee cherry in coffee processing and discloses the process of removing the coffee cherries crop at all stages of ripeness by strip-picking, after most of the coffee cherry fruits have matured, due to labor cost (pg. 75, lines 14-18). It would have been obvious to one of ordinary skill in the art to use sub-ripe coffee cherries as disclosed by Sivetz et al. as Sivetz clearly teaches that economics, specifically the supply, quality, and cost of labor in connection with the span of harvest are important in determining how coffee is to be harvested and dried (pg. 76, lines 16-18) in relation to sub-ripeness.

18. **Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boniello et al. (US 4,867,992) and Drunen et al. (US6,572,915 B1) further in view of The Free Dictionary by Farlex.**

19. **Regarding claims 18-20**, Boniello et al. and Drunen et al. are set forth above. Drunen discloses a process for a food product or beverage with chromatography extraction of coffee cherry by-product of coffee processing with nutrient of polysaccharide, polyphenol and caffeine (col. 3, lines 40-56). Drunen et al. does not disclose a method of marketing the reference composition *per se*. According to the The

Art Unit: 1794

Free Dictionary by Farlex the concept of marketing a product generally entails the following aspects.

"The activities of a company associated with buying and selling a product or service. It includes advertising, selling and delivering products to people. People who work in marketing department of the companies try to get the attention of the target audiences by using slogans, packaging design, celebrity endorsement and general media exposure. The four 'Ps' of marketing are product, place, price and promotion."

20. It would have been obvious to market a food product with the information about the ingredients printed on at least the one of a container containing the formulation and a package containing the container and would have been well within the purview of one ordinary skill in art at the time the invention was made. Additionally, it is well known that food products advertise their ingredients on the packaging thereof. It is also well known that any benefit attributed to the food product is also indicated on the packaging thereof for the purpose of informing the consumer.

Response to Arguments

21. Applicant's argument filed on September 24, 2009 has been fully considered but they are not persuasive.

22. Applicant states that Boniello et al. teaches portions of coffee cherry. However, applicant argues Boniello et al. does not teach the use of a coffee cherry as presently claimed. Examiner disagrees. Boniello et al. teaches the comminuted whole coffee cherry including pulp, husks, mucilage, green bean employing an extraction process by processing the comminuted whole coffee cherry through extraction resulting in an

Art Unit: 1794

extract combined with additional concentrated coffee extract to be spray dried into soluble coffee in which is considered as both food ingredient and food product.

23. Applicant argues that Drunen fails to teach a whole coffee cherry. Examiner agrees. Drunen is not relied on the whole coffee cherry, but Drunen discloses the process of combining comminuted coffee cherry extract, as discussed above, to foodstuff such as beverage. Additionally, Drunen is relied on to show the process of selective extraction of antioxidants, from comminuted coffee cherry.

24. Applicant argues Fabian, Duvic et al. and Blanc et al. fail to disclose the various levels of mycotoxin levels of the whole coffee cherry, but is rather directed to coffee beans. Examiner agrees. Fabian, Duvic et al. and Blanc et al. disclose the mycotoxins levels and the known various levels of mycotoxin in coffee beans in certain amounts would be effective in the art. However, Blanc's studies the natural occurrence of mycotoxins in green coffee beans, in which Drunen provides as an ingredients, pieces of the whole coffee cherry including ground green coffee beans, coffee by products (pulp, coffee husks and mucilage), as well as hydrolyzed spent grounds, roast and ground coffee (col. 2, lines 57-63) in solution for an extraction process. The toxin levels are low in green coffee beans as emphasized by prior references, therefore the toxin levels would be expected to be low in a comminuted green coffee bean.

25. Applicant argues that Sivetz et al. is silent on any other use for the harvested fruit, and combination with a food product. Examiner disagrees. Sivetz et al. discloses the process of harvesting coffee cherry as applicant has acknowledged. Sivetz's teaching is not relied on the use of the harvested fruit in the above rejection, but

Art Unit: 1794

Boniello's and Drunen's processes in further view of Sivetz's stages of harvested coffee cherry as instantly claimed, are in combination to the instant claim. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HONG MEHTA whose telephone number is (571)270-7093. The examiner can normally be reached on Monday thru Thursday, from 7:30 am to 4:30 pm EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1794

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Htm

/JENNIFER MCNEIL/

Supervisory Patent Examiner, Art Unit 1794